

Study Elements

Vision Plan Goals:

1. Maximize limited infrastructure budgets through parity between transit and highway investments.
2. Provide greater mobility options through an integrated high-capacity transit system.
3. Improve land use and transportation coordination by encouraging transit-supportive development within mixed-use activity centers and corridors.
4. Reduce energy consumption, improve air quality, and mitigate climate change impacts with a robust transit system based on renewable energy sources.
5. Promote economic growth and regional competitiveness through a transit system that connects major activity and employment centers.

Technical Analyses of Proposed Transit Corridors

Land Use Analysis

- Conducted site visits to each jurisdiction and interviewed local staff about growth patterns and transportation plans
- Documented comprehensive planning and zoning conditions along potential rapid transit corridors
- Analyzed compatibility between proposed transit improvements and land use expectations

Market Analysis

- Developed demographic and economic baseline
- Interviewed economic development professionals in each jurisdiction
- Developed projections for transit corridors and assessed transit investment impact

Capital Cost Estimates

- Developed capital cost estimates based on national experience with similar projects

Ridership Forecasting

- Developed general ridership estimates for proposed corridors using a Federal Transit Administration (FTA) model

Marketing Framework Plan

- Held a workshop with Public Information Officers from local government jurisdictions and other agencies in the region
- Developed key messages and a strategic approach to support the plan
- Prepared a 24-month implementation schedule and budget
- Proposed innovative and effective marketing strategies, to include radio, TV, social networking, and public service ads

Overall Evaluation of Transit Corridors

- Used findings of above analyses to develop evaluation criteria
- Assessed contribution of corridors to a regional transit network and multimodal connectivity (e.g., links to future higher-speed rail corridors as well as connectivity with the local bus system, and pedestrian and bicycle infrastructure)
- Recommended timeframes for implementation of transit corridors based on current and projected corridor feasibility

Premium Transit Modes



Light Rail Transit



Commuter Rail



Bus Rapid Transit



Modern Streetcar



High-Speed Ferry

Light Rail Transit

An electric railway fueled by overhead wires, similar to The TIDE. It can operate on separate right-of-way corridors and along some urban streets.

Commuter Rail

Heavy rail equipment largely operating on existing rail lines and consisting of diesel locomotives pulling multiple rail coaches. Trips are from 20 to 60 miles in length much like the Virginia Railway Express in Northern Virginia.

Enhanced Bus

Higher-frequency service with improved operations such as priority at traffic signals, real-time arrival information, and additional station stop amenities.

Express Bus

Similar to today's HRT MAX service that uses coach bus vehicles and serves regional commuter trips.

Bus Rapid Transit

Special bus service operating in dedicated lanes with station and vehicle improvements to speed boarding. Serves intermediate distance trips with limited stops.

Streetcar

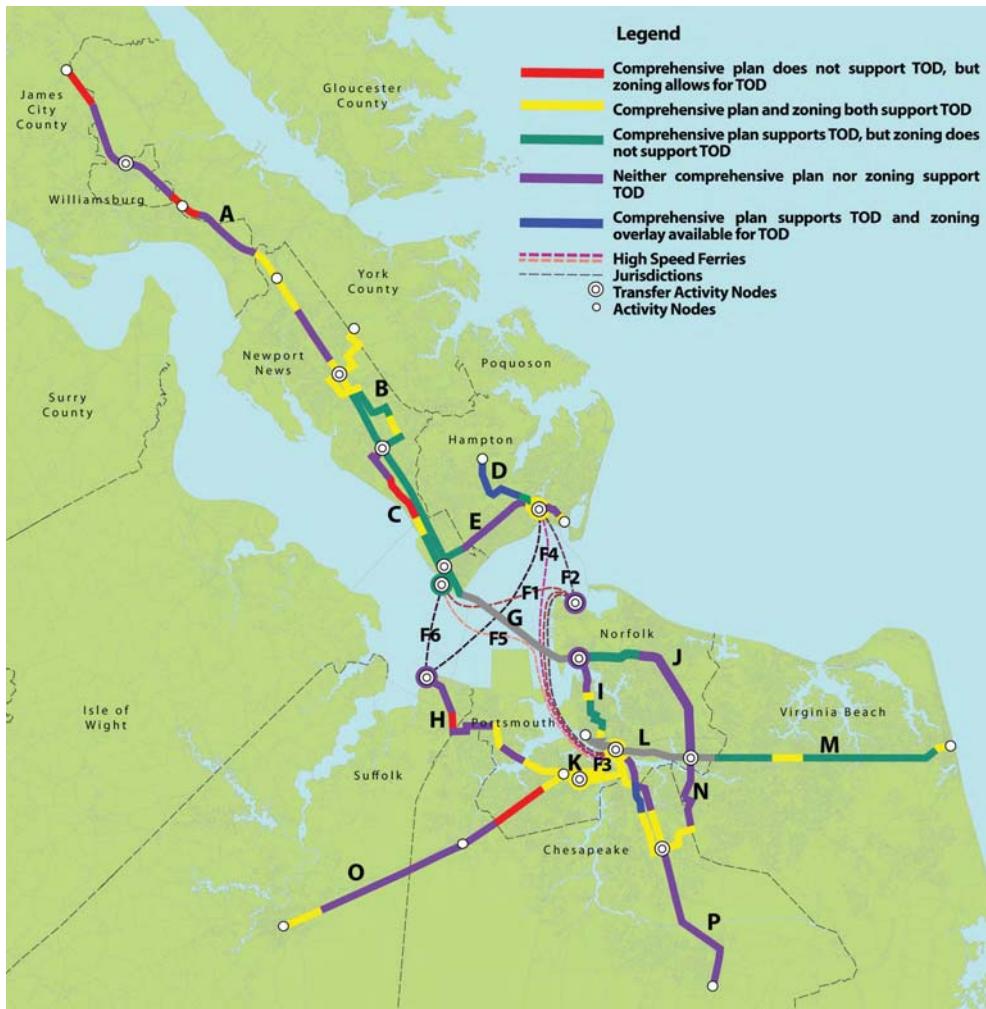
Similar to light rail service, streetcars typically operate in existing streets and travel shorter distances, with more frequent stops. The vehicle is slightly smaller than a light rail car. Modern high-capacity vehicles enable faster boarding and more comfortable and accessible travel than buses.

High-Speed Ferry

These new higher-speed passenger ferries would be geared towards commuters, with routes connecting key employment centers.

Supporting Regional Land Use and Development

Planning and Zoning for Transit



The study team carefully considered the presence of activity centers and the likelihood that transit-oriented development (TOD) patterns would emerge along the proposed transit lines. This analysis was based on the following factors:

- The extent to which the locality's comprehensive plan envisions TOD.
- Whether the locality's zoning codes allow for TOD (i.e. medium- to high-density, mixed-use development).
- The number of major employment centers connected by the proposed corridor.
- The current population density within $\frac{1}{4}$ mile of the proposed transit line.

Transit-Oriented Development (TOD)



Bird's eye view of conceptual Downtown Newport News transit-oriented development at future rail/transit station (VA Dept. of Rail and Public Transportation)



Street-level artist's depiction of Newport News transit-oriented development (VA Dept. of Rail and Public Transportation)



City Center at Oyster Point – new development with TOD characteristics

- TOD supports efficient transit service through creation of compact, walkable, mixed-use communities within $\frac{1}{4}$ to $\frac{1}{2}$ mile of a transit station.
- TOD brings together people, jobs, and services and is designed in a way that makes it efficient, safe, and convenient to travel on foot, by bicycle, or on transit.
- Car travel and parking is accommodated in TOD such that it does not detract from pedestrian safety and comfort or ease of access to transit stations.

A Regional Multi-modal Transportation Network

Proposed Water Crossings



High-Speed Ferry Routes

To provide a true regional alternative to automobile travel throughout Hampton Roads, providing water crossings must be an integral part of the future transit network. Recognizing the tremendous expense of constructing and maintaining bridges and tunnels and the uncertainty as to when and how much funding will be available for such projects, the Vision Plan presents short- and long-term options for transit water crossings, including coordination with other major transportation projects under study. These crossing options include:

High-Speed Ferry Services

- In the near term (by 2025), high-speed ferry routes would connect the proposed Harbor Park Multi-modal Station in downtown Norfolk with the downtowns of Newport News, Hampton and Portsmouth, and Norfolk Naval Station.
- In the extended term (beyond 2035), a wider network of ferry routes is envisioned that would provide direct service among the downtowns and also provide service to the Harbour View activity center in northern Suffolk.

Extended-Term Rail Transit Crossing

- The Vision Plan anticipates a new bridge/tunnel crossing in the extended term that could include a rail connection across the James River.
- The Plan explores a conceptual transit-only (Light Rail Transit) tunnel, "Corridor G," to connect the proposed rail corridors in downtown Newport News with the Norfolk Naval Station and the proposed Southside light rail corridors.

- Also examined are ways to link the VDOT Third Crossing and Hampton Roads Bridge-Tunnel expansion proposals into the Vision Plan transit network, such that the Plan could accommodate transit elements of these river crossing concepts, should one be implemented by local governments and regional agencies

Midtown and Downtown Tunnels

- The Midtown, Downtown, and other Elizabeth River crossings to be constructed/improved in the future should include a dedicated lane for transit service.
- The Vision Plan specifically promotes a dedicated transit lane for the Downtown Tunnel, able to accommodate streetcar, light rail, and bus rapid transit service.

Multi-modal Connections



Harbor Park Multi-modal Transportation Center (Concept Sketch, City of Norfolk)

Multi-modal connectivity is a critical component of the Vision Plan recommendations. Highlights of the vision include Peninsula and Southside multi-modal hubs.

Proposed Peninsula Multi-modal Transportation Center

Downtown Newport News will be an important regional transfer center, with commuter rail, light rail, ferry services, express buses and long distance passenger rail all connecting here. The station would anchor new transit-oriented development in downtown.

Harbor Park Multi-modal Transportation Center

The City of Norfolk is planning this transportation hub that will connect The TIDE light rail with a new local bus transfer center, Intercity Rail Station and ferry services.

Other Transfer Points and Connecting Services

- Connections with the higher-speed rail projects under study;
- A strong underlying network of local bus service to link neighborhoods and businesses that are not directly on the transit corridors with the regional rapid transit system;
- Transit network connectivity with the region's two commercial airports;
- Transit-oriented development patterns that promote pedestrian activity and create safe conditions for bicycle transportation; and
- Park-and-ride facilities for areas with limited transit coverage and end-of-line stations. Park-and-ride lots can also function to reserve land for future transit-oriented development when market conditions are ready.

Proposed Transit Network

Short-Term Recommendations (by 2025)



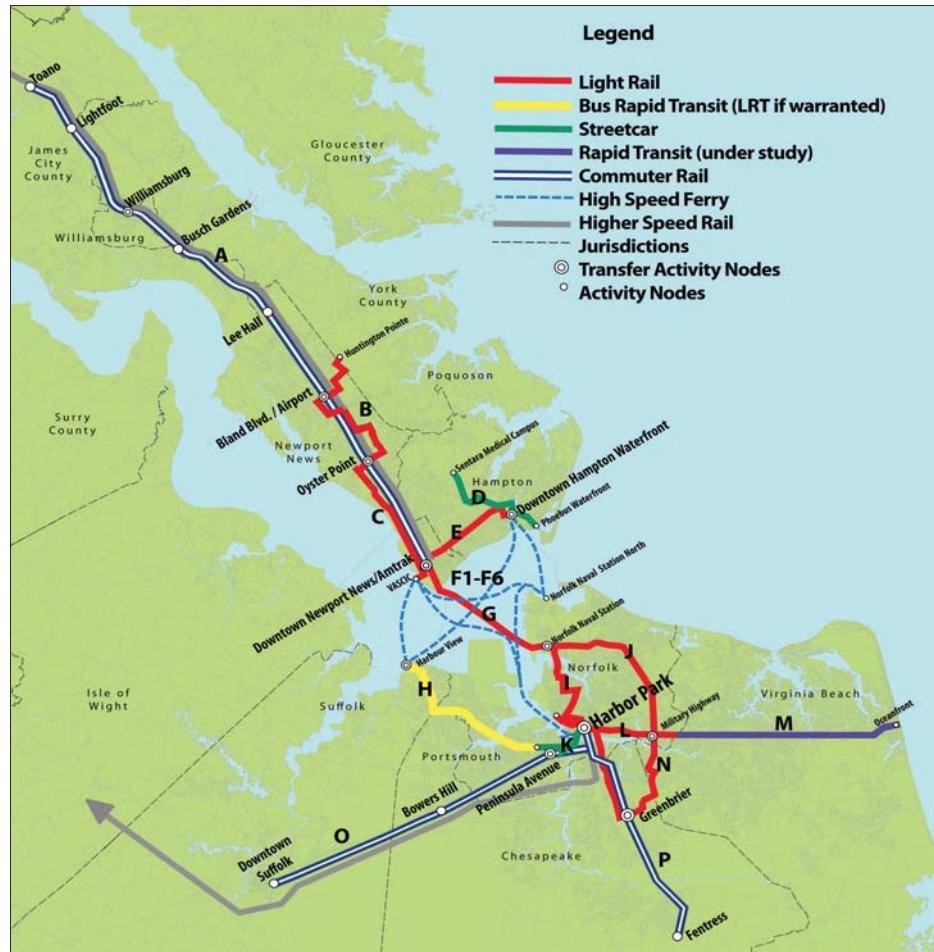
Long-Term Recommendations (by 2035)



Extended-Term Recommendations (beyond 2035)



Overall Vision Plan Map (includes Short-, Long- and Extended-Term Recommendations, beyond 2035)



The Transit Vision Plan proposes a network of rail, ferry and bus rapid transit modes that would generally operate within dedicated right-of-way between major activity centers. These recommended corridors are phased according to current and projected land use and market conditions.

Corridor No.	Corridor Description	Mode	Corridor No.	Corridor Description	Mode
A	Downtown Newport News to James City County	Commuter Rail	G	Downtown Newport News to Norfolk Naval Base	Transit-Only Tunnel
B	Christopher Newport University to Huntington Pointe	Light Rail	H	Midtown Portsmouth to Harbour View	Bus Rapid Transit
C	Downtown Newport News to Christopher Newport University	Light Rail	I	TIDE Extension from York St. Station to Naval Base	Light Rail
D	Fort Monroe to Coliseum Central	Streetcar	J	TIDE Extension from Military Hwy Station to Naval Base	Light Rail
E	Downtowns Newport News to Downtown Hampton	Light Rail	K	Portsmouth Ferry Landing to Constitution Ave. (future connection to Harbor Park)	Streetcar
F1	Downtown Newport News to Norfolk Naval Base to Downtown Norfolk	High-Speed Ferry	L	The TIDE (under construction)	Light Rail
F2	Downtown Hampton to Norfolk Naval Base and Downtown Norfolk	High-Speed Ferry	M	TIDE Extension to Virginia Beach	Rapid Transit (mode under study)
F3	Downtown Portsmouth to Downtown Norfolk	High-Speed Ferry	N	TIDE Extension from Military Hwy Station to Greenbrier and Harbor Park	Light Rail
F4	Downtown Newport News to Downtown Norfolk	High-Speed Ferry	O	Harbor Park to Downtown Suffolk	Commuter Rail
F5	Downtown Hampton to Downtown Norfolk	High-Speed Ferry	P	Harbor Park to Fentress	Commuter Rail
F6	Harbour View Ferry Connections to Hampton and Newport News	High-Speed Ferry			

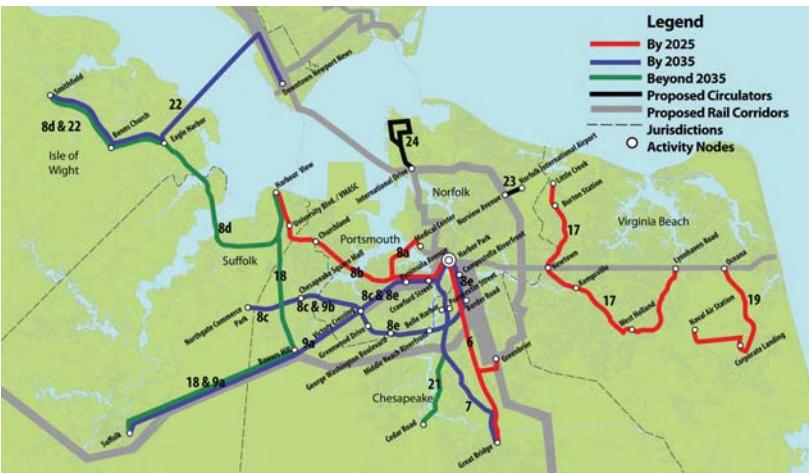
Proposed Express and Enhanced Bus Network

Peninsula Network



Note: Existing HRT and WATA routes are not shown on map.

Southside Network



Note: Existing HRT and WATA routes are not shown on map.

The Transit Vision Plan proposes new regional bus corridors that connect to major transit transfer centers and activity nodes. This proposed network will supplement the existing HRT MAX express bus routes as well as local HRT and WATA routes.

Corridor No.	Corridor Description	Mode Recommendation
6	Harbor Park to Great Bridge	Express Bus
7	I-464/Route 168, Norfolk to Great Bridge	Express Bus
8a	Norfolk Hospital to Portsmouth via Midtown Tunnel	Enhanced Bus
8b	Harbor Park to Harbour View	Enhanced Bus
8c	Downtown Portsmouth to Northgate Commerce Park	Express Bus
8d	Harbour View to Smithfield	Express Bus
8e	Portsmouth to Victory Crossing to Harbor Park	Enhanced Bus
9a	Harbor Park to Downtown Suffolk	Express Bus
9b	Norfolk, Portsmouth, Chesapeake Square Mall	Enhanced Bus
11	Downtown Newport News to Williamsburg	Express Bus
13	Downtown Newport News to Buckroe Beach	Enhanced Bus
14	Gloucester County to Oyster Point	Express Bus
15a	Oyster Point to Poquoson	Enhanced Bus
15b	Poquoson to Langley to Coliseum Central	Enhanced Bus
17	Princess Anne Road and Lynnhaven Pkwy	Enhanced Bus
18	Downtown Suffolk to Bowers Hill to Harbour View	Express Bus
19	Oceana Station to Naval Air Base	Enhanced Bus
20	Downtown Hampton to Oyster Point	Enhanced Bus
21	Downtown Norfolk to Cedar Road	Express Bus
22	Smithfield to Downtown Newport News	Enhanced Bus
23	Norview Avenue to Norfolk International Airport	Circulator Bus
24	International Drive into Norfolk Naval Station	Circulator Bus
25	Phoebe to Fort Monroe, Hampton	Circulator Bus